

WHAT IS CLAIMED IS:

1. A seal comprising:

a brush seal segment including a base having a flange and a plurality of bristles secured to said base having distal tips for engaging a movable member;

a mounting structure for the seal having a groove for receiving the base of the brush seal and having a hook, said groove being sized to enable the brush seal bristles to project beyond a surface of the mounting structure to engage the movable member upon engagement of said brush seal flange and said hook;

at least a pair of threaded apertures extending through the mounting structure and opening into said groove;

a screw threaded into each of said apertures with an
end thereof engaging said base to maintain the brush seal flange in engagement with the hook of said base; and

means connecting between said mounting structure and said screw for securing said screw in said threaded aperture.

2. A seal according to Claim 1 wherein said means include staking the set screw to the mounting structure.

3. A seal according to Claim 1 wherein said means includes a wire insert screwthreaded into each said aperture, said screw being threaded into said wire insert.

4. A seal according to Claim 1 wherein said groove has an opening facing said movable member, said threaded apertures opening into said groove on a side thereof opposite said movable member.

5. A seal according to Claim 1 wherein said groove and said base are arcuate, the tips of the bristles forming an arcuate edge of the seal for engaging a rotating member.

6. A seal according to Claim 5 wherein said groove has an opening facing said movable member, said threaded apertures opening into said groove on a side thereof opposite said movable member, said means including staking the set screw to the mounting structure.

7. A seal according to Claim 5 wherein said groove has an opening facing said movable member, said threaded apertures opening into said groove on a side thereof opposite said movable member, said means including a wire insert screwthreaded into each said aperture, said screw being threaded into said wire insert.

8. A turbine seal arrangement comprising:

an inner barrel about a turbine axis and having an arcuate groove opening inwardly toward the axis, said groove including an axially extending recess spaced within and back from the groove opening and defining a hook;

a rotor rotatable relative to said inner barrel;

a brush seal including an arcuate base disposed within said arcuate groove and a plurality of bristles extending from said base through said groove opening and terminating in tips engaging a sealing surface on said inner barrel, said base having a flange extending axially into said recess and engaging said hook;

a pair of apertures extending through said inner barrel into said groove from a side thereof opposite said groove opening;

a pin in each said aperture engaging a back side of said base away from said groove opening at circumferentially spaced positions about said base to maintain said flange and said hook in engagement with one another; and

means for securing each said pin in said aperture against axial movement relative to and within said aperture to maintain the bristle tips in sealing engagement with said rotor.

9. A turbine seal arrangement according to Claim 8 wherein said securing means includes portions of said pin and mounting structure staked to one another.

10. A turbine seal arrangement according to Claim 8 wherein said securing means includes a wire insert screwthreaded into each said aperture, said pin being threaded into said wire insert.

11. A turbine seal arrangement comprising:

a diaphragm having a generally arcuate inner wall extending about an axis, said inner wall having a groove opening inwardly toward the axis, said groove including an axially extending recess spaced within and back from the groove opening and defining a hook along said diaphragm wall;

a rotor rotatable relative to said inner wall;

a brush seal including an arcuate base disposed within said groove and a plurality of bristles extending from said base through said groove opening and terminating in tips engaging a sealing surface on said rotor, said base having a flange extending axially into said recess and engaging said hook;

a pair of apertures extending through said inner wall of the diaphragm into said groove from a side thereof opposite said groove opening;

a pin in each aperture engaging a back side of said base away from said opening at spaced positions along said inner wall to maintain said flange and said hook in engagement with one another; and

means for securing each said pin in said aperture against axial movement relative to and within said aperture to maintain the bristle tips in sealing engagement with said rotor.

12. A seal according to Claim 11 wherein said securing means includes portions of the pin and the mounting structure staked to one another.

13. A seal according to Claim 11 wherein said securing means includes a wire insert screwthreaded into each said aperture, said pin being threaded into said wire insert.